Abstract

Traffic demands are routed between network elements so as to provide improved protection against network failures. A given traffic demand is routed from a first network element to a second network element, where the second network element is preferably either one of a set of dual-homed elements, or coupled to a dual-homed element, and may also be an element of a ring-type transport or a mesh-type transport. The second network element processes the traffic demand such that a copy of a signal associated with the demand is (i) retained at the second network element, while the signal is routed to at least one additional network element, or (ii) routed to at least one additional network element, while the signal is routed to at least one network element other than the additional network element. For example, in a multidrop connection implemented in accordance with the invention, a copy of the signal is "dropped" at the second network element and one or more additional network elements. In a multicast connection implemented in accordance with the invention, one or more copies of the signal are multicast from the second network element to multiple additional network elements.